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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,489	05/07/2001	Magnus Fagrell	0459-0601P	8854

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EXAMINER

QUAN, ELIZABETH S

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 11/10/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

C109

Office Action Summary

Application No.

09/849,489

Applicant(s)

FAGRELL ET AL.

Examiner

Elizabeth Quan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) 12, 13 and 17-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-13 and 17-19 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 5. 6) ☐ Other:

DETAILED ACTION***Election/Restrictions***

1. Applicant's election with traverse of invention I, claims 1-11 in Paper No. 7 is acknowledged. The traversal is on the ground(s) that the Examiner would not be unduly burdened if forced to examine Groups I, II, III, and IV. This is not found persuasive because the inventions as designated by groups are distinct as shown below, and there is undue burden on the examiner. According to MPEP 803, a serious burden on the examiner may be prima facie shown if the examiner shows by appropriate explanation of separate classification, or separate status in the art, or a different field of search as defined in MPEP § 808.02. Examiner has shown that the different groups retain separate classification, separate status in the art, and different field of search in the previous office action. It is emphasized that chemical methods and chemical apparatuses, chemical methods and computer parts, chemical apparatuses and computer parts are in separate classes.

Note that claims 17 and 18, which correspond to claims 14 and 15, are now Invention III, and claim 19, which corresponds to claim 16, is now Invention IV. In addition to the distinctness shown in the previous office action, Inventions I and II/III are distinct because the apparatus of invention II as claimed can be used to practice another and materially different process, such as a plurality of drinking cups with orange juice, ice cube tray with wells containing water, or test strip with several test areas impregnated with reagents; and the apparatus of III as claimed can be used to practice another and materially different process, such as an automated evaporator with several containers holding solutions to be evaporated, automated heater or water bath for heating solutions,

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such as milk or medicine, or automated analyzer applying electromagnetic waves or the like in performing detection of diluted substances within the wells of a microtiter plate. It is also noted that invention I does not recite the computer readable data carrier loaded with the computer program system or the method steps the computer program system performs, such as providing instructions to the liquid handler, of invention IV. In addition to the distinctness shown in the previous office action, invention II has separate utility from invention III, such as an ice cube tray filled with water, and invention III has separate utility such as an automated evaporator or water bath. In addition to the distinctness shown in the previous office action, invention II has separate utility from invention IV such as a plurality of drinking cups with orange juice, ice cube tray with wells containing water, or test strip with several test areas impregnated with reagents, and invention III has separate utility from invention IV, such as an automated evaporator with several containers holding solutions to be evaporated, automated heater or water bath for heating solutions, such as milk or medicine, or automated analyzer applying electromagnetic waves or the like in performing detection of diluted substances within the wells of a microtiter plate. It is emphasized that inventions II and III do not require a computer program system. Invention II is considered broad such that it reads an ice cube tray since method limitations afford no patentable weight in apparatus claims, and Invention III includes an apparatus for providing energy and parameter selecting unit with a user interface and storage means with a database, which is not recited in Invention II.

The requirement is still deemed proper and is therefore made FINAL.

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Denmark on 5/8/2000. It is noted, however, that applicant has not filed a certified copy of the PA 2000 00759 application as required by 35 U.S.C. 119(b).

Information Disclosure Statement

2. Applicant is reminded that the IDS that was filed last is not present in the file. Applicant is invited to file the IDS and associated prior art.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claims 1-11 are rendered indefinite by the recurrence of superscripts and subscripts the meaning of which are unknown. For example, why does $^{MN}\delta$ have an extra superscript M? Is there significance between R chemical reactions and R sets of reaction parameters? Is there significance in denoting chemical substances A_R with subscript R? It appears superscript N of chemical species and their functionalities is denoting the chemical species and their functionalities in reference to the database and superscript X of chemical species and their functionalities is denoting the chemical species and their functionalities when not referring to the database. Why is it then the reaction parameters are denoted by superscript X when it appears to be referring to the database? Why is the reaction parameter sometimes without superscript?

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 98/15825 to Nova et al.

Nova et al. disclose a method of conducting multiple chemical reactions in a system with an apparatus, which provides energy for the chemical reactions (PAGE 11, line 24-PAGE 13, line 7; PAGE 53, line 1-PAGE 54, line 21; PAGE 70, line 7-PAGE 95, line 31). The system includes a parameter selecting unit with a user interface and storage means with a database (PAGE 11, line 24-PAGE 13, line 7; PAGE 53, line 1-PAGE 54, line 21; PAGE 70, line 7-PAGE 95, line 31). The chemical reaction involves the transformation of one or more chemical species xB with one or more functionalities β into a reaction product xD with one or more functionalities δ under the influence of one or more corresponding chemical substances A_R with one or more functionalities α_R , which is involved in transforming one or more functionalities β of the one or more chemical species xB into one or more functionalities δ of the reaction product xD (PAGE 11, line 24-PAGE 13, line 7; PAGE 53, line 1-PAGE 54, line 21; PAGE 70, line 7-PAGE 95, line 31). The database has N sets of data each of which is directed to a set of reaction parameters and pertinent information for a particular chemical reaction involving the transformation of one or more functionalities $^N\beta$ of the one or more chemical species NB

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into one or more functionalities $^{MN}\delta$ of the reaction product $^N D$ (PAGE 11, line 24-PAGE 13, line 7; PAGE 53, line 1-PAGE 54, line 21; PAGE 70, line 7-PAGE 95, line 31). Each of the N sets of may include information on the structure and molecular weight of the chemical specie(s) of interest, reaction steps, pre-reaction procedures, and reaction work-up procedures (PAGE 11, line 24-PAGE 13, line 7; PAGE 53, line 1-PAGE 54, line 21; PAGE 70, line 7-PAGE 95, line 31).

The system by which chemical reactions are performed operates interactively. The user providing information to the user interface of the parameter selection unit about chemical species $^x B$ of which one or more functionalities β is part of, such that providing information about chemical species $^x B$ would also be providing information about the one or more functionalities β in the process (PAGE 74, line 28-PAGE 75, line 2). The user also provides to the user interface of the parameter selection unit the desired transformation of chemical species $^x B$ of which one or more functionalities β is part of into reaction product $^x D$ of which one or more functionalities δ is part of, such that providing information about the transformation of $^x B$ to $^x D$ would also be providing the transformation of β to δ in the process (PAGE 74, line 28-PAGE 76, line 5). The user not only selects the chemical species but may also specify the number of synthesis steps, procedural information, such as reaction times, temperatures, molarities, reagents, and other pre-procedure and work-up procedure information (PAGE 75, line 3-PAGE 77, line 16). After the user provides information to the interface, the parameter selection unit retrieves and displays the data at appropriate times during the synthesis (PAGE 75, line 31-PAGE 77, line 16). The parameter selection unit controls the sorting process by identifying the memory in the matrix of a matrix-with-memory, seeking the identification

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of the memory in the database, and taking appropriate measures depending on the identity of the memory (PAGE 76, lines 15-32). The parameter selection unit guides the user during the synthesis process, such that an array of reaction mixtures each comprising a predetermined amount of chemical substances A_R and chemical species xB is prepared and treated according to the sets of reaction parameters. The array of reaction mixtures is provided from xB stock solution(s) and a kit comprising stock solutions of the chemical substances A_R in bottles, vials, or flasks. Several reactions are performed simultaneously, and the steps of performing preliminary procedures, sorting, reactions, work-up procedures, etc. are performed sequentially per reaction. The reactions may be heated (PAGE 71, line 29-PAGE 72, line 2). Since the containers holding the reaction mixtures are transmissive to microwave frequencies, the reaction is a microwave facilitated chemical reaction (PAGE 53, lines 1-10).

Double Patenting

8. Claim 4 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 3 because claim 4 recites R chemical substances, which has already been defined by claim 1 as more than one, which is recited in claim 3. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They include one or more limitations in the claims.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Quan whose telephone number is (703) 305-1947. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (703) 308-4037. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Elizabeth Quan
Examiner
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eq

A handwritten signature in black ink, reading "Arlen Soderquist". The signature is fluid and cursive, with the first name "Arlen" and last name "Soderquist" clearly distinguishable.

ARLEN SODERQUIST
PRIMARY EXAMINER